



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,689	11/06/2003	Vinay Mehta	FDN-2815	8995

7590 04/25/2011  
GAF MATERIALS CORPORATION  
Attn: William J. Davis, Esq.  
Legal Department, Building No. 10  
1361 Alps Road  
Wayne, NJ 07470

EXAMINER
----------

COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
----------	--------------

1798

MAIL DATE	DELIVERY MODE
-----------	---------------

04/25/2011

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/702,689	<b>Applicant(s)</b> MEHTA ET AL.	
	<b>Examiner</b> Elizabeth M. Cole	<b>Art Unit</b> 1798	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5,9,12,16-29 and 36-42 is/are pending in the application.
- 4a) Of the above claim(s) 19-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,9,12 and 16-18, 36-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

Art Unit: 1798

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/29/11 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 9,12, 16-18, 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/37668 in view of EP 657502. WO '668 discloses a roofing underlayment comprising a water vapor permeable layer bonded to a fabric layer such as a nonwoven fiber glass. The vapor permeable layer can be more than one layer and therefore meets the limitation of claim 3, in that the structure is unclear other than that a second vapor permeable layer is recited. See page 7 which teaches at least one functional, (breathable), layer and therefore teaches more than one functional layer. The water vapor permeable layer can comprise copolyether ester, polyurethane or copolyether amide. See page 7, fourth full paragraph. The substrate layer can be a fiberglass layer. See page 8, fourth full paragraph. The vapor permeable layer can have a thickness of greater than 2 mils. See page 9, first full paragraph. The combination of the permeable layer and the fibrous substrate layer has a thickness of

Art Unit: 1798

0.4 mm which is about 15 mils, and therefore the permeable layer would apparently meet the thickness requirements set forth in claims 9 and 12. WO '668 differs from the claimed invention because it does not teach blending an adhesion promoter into the vapor permeable layer and does not teach further adding water repellant, algacide, herbicide antifungal, surface friction agent, flame retardant or coloring dye. However, EP '502 discloses compositions for breathable layers. EP '502 teaches incorporating methyl methacrylate polymers into thermoplastic polyurethane compositions in order to form breathable layers at reduced cost. See page 3, lines 1-16. EP '502 further teaches that such compositions can further comprise additives such as flame retardants and other conventional additives. See page 3, lines 50-54. EP '502 teaches that ethylene vinyl acetate or maleic anhydride grafted ethylene vinyl acetate can be added in amounts of 1-10 as a compatibilizer. See page 3, lines 9-42. Therefore, it would have been obvious to have incorporated the additional components taught by EP '502 into the thermoplastic polyurethane of WO '668 with the expectation that this would produce a breathable layer at a reduced cost.

4. Claims 1-5, 9,12, 16-18, 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 96/37668 in view of Corzani et al, U.S. Patent Application Publication No. 2003/0194566. WO '668 discloses a roofing underlayment comprising a water vapor permeable layer bonded to a fabric layer such as a nonwoven fiber glass. The vapor permeable layer can be more than one layer and therefore meets the limitation of claim 3, in that the structure is unclear other than that a second vapor permeable layer is recited. See page 7 which teaches at least one functional,

Art Unit: 1798

(breathable), layer and therefore teaches more than one functional layer. The water vapor permeable layer can comprise copolyether ester, polyurethane or copolyether amide. See page 7, fourth full paragraph. The substrate layer can be a fiberglass layer. See page 8, fourth full paragraph. The vapor permeable layer can have a thickness of greater than 2 mils. See page 9, first full paragraph. The combination of the permeable layer and the fibrous substrate layer has a thickness of 0.4 mm which is about 15 mils, and therefore the permeable layer would apparently meet the thickness requirements set forth in claims 9 and 12. WO '668 differs from the claimed invention because it does not teach blending an adhesion promoter into the vapor permeable layer and does not teach further adding water repellant, algacide, herbicide antifungal, surface friction agent, flame retardant or coloring dye. Corzani teaches blending an additional component into the breathable layer of a roofing underlayment comprising thermoplastic polymeric layers in order to improve the bonding of the breathable layer to other layers. The additive can include ethylene vinyl acetate grafted with maleic anhydride, (paragraph 0032), or ethylene methyl methacrylate based copolymers. See paragraphs 0032-0034. The composition may further comprise antioxidants, pigments, UV stabilizers, etc. See paragraph 0051. The compositions comprising the blend have better bond strengths. See paragraph 0055. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the adhesion promoters or improvers taught by Corzani as well as the additives such as pigments, etc., in the breathable layer of WO '668, in order to improve the bonding strength of the composition of WO '668. It is noted that Corzani also teaches film

Art Unit: 1798

thickness within the claimed ranges. See paragraphs 0068-0069. The composition can be bonded with various fibrous substrates, (paragraph 0079), has a MVTR of at least 100 g per square meter per 24 hours, (paragraph 0084), and is useful in roofing materials, (paragraph 0096). With regard to the particular amounts claimed, it would have been obvious to have selected the amounts of adhesion promoters through the process of routine experimentation which produced the optimum bonding of the laminate material.

5. The Declaration filed on 3/29/11 under 37 CFR 1.131 is in sufficient to overcome the Corzani reference because it does not include the signatures of all inventors.

6. Applicant's arguments filed 3/29/11 have been fully considered but are not persuasive. The argument that the Declaration filed 3/29/11 antedates the Corzani reference is not persuasive because the Declaration is not signed by all inventors. The Declaration would be sufficient if it were signed by all inventors. A new grounds of rejection is also set forth above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

The examiner's supervisor Angela Ortiz may be reached at (571) 272-1206.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art Unit: 1798

The fax number for all official faxes is (571) 273-8300.

/Elizabeth M. Cole/  
Primary Examiner, Art Unit 1798